

Phillips Scientific

16 Channel Logic Level Translator

CAMAC
MODEL
7126

FEATURES

- * Converts TTL, NIM and ECL Logic Families
- * High Density - 16 Independent Channels
- * DC - 150 MHz for NIM and ECL Translation
- * DC - 100 MHz for TTL Translation
- * Low Power - Meets Requirements for Single CAMAC Slot
- * Available in NIM Packaging Model 726

DESCRIPTION

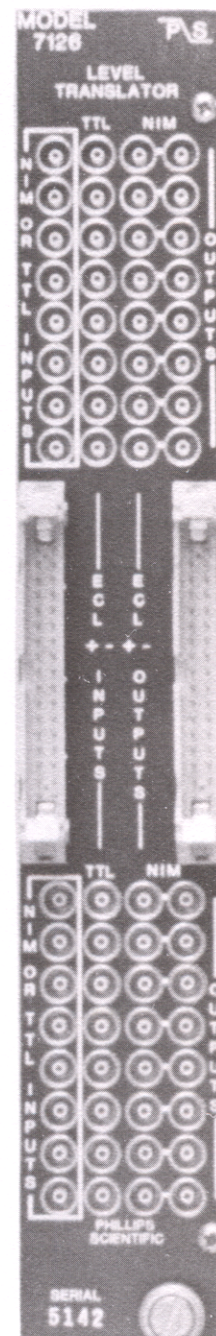
The model 7126 is a 16-channel level translator packaged in a double width CAMAC module. It simultaneously converts in any direction between NIM, TTL and ECL logic families. In addition, a logical "OR" is possible for the ECL input and the NIM/TTL input. The input to output is direct coupled with the output duration equal to the input duration. Each channel has a single input connector which accepts a fast negative NIM level with 50 ohm input impedance and a positive TTL level with 500 ohms impedance. This produces a positive TTL output capable of driving a 50 ohm load and a bridged NIM output that drives two 50 ohm loads. The NIM output stage is current-switching which allows pulse clipping and is protected from damage due to shorted cables.

INPUT CHARACTERISTICS

- NIM/TTL : 16 inputs, one per channel, LEMO style connector; accepts both negative NIM or positive TTL pulses or levels.
- NIM: 50 ohms impedance $\pm 10\%$; -500 mV threshold; input protected to ± 8 VDC.
- TTL: 500 ohms impedance $\pm 10\%$; +1.2 V threshold; input protected to ± 8 VDC.
- ECL Input : 16 inputs, one per channel; 2 x 17 pin header with lock and eject feature; accepts complementary ECL inputs; removable 110 ohm input termination; 200 mV differential threshold.

OUTPUT CHARACTERISTICS

- NIM Outputs : Two NIM outputs per channel; bridged -32 mA current switching, LEMO style connectors; delivers one double amplitude NIM level or two normal NIM levels into 50 ohms; 1.5 nSec rise and fall times.



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OUTPUT CHARACTERISTICS (continued)

- TTL Output : One TTL output per channel, LEMO style connector; sources 45 mA to drive 50 ohm load or 1000 standard TTL loads, sink current of 100 mA; able to drive 100 standard TTL loads. 3.5 nSec rise and fall times.
- ECL Output : Complementary ECL, one per channel; 2 x 17 pin header with lock and eject feature; drives two 110 ohm ECL loads or up to 30 daisy-chained loads. Normal ECL levels of -800 mV and -1.7 Volts, 2 nSec rise and fall times.

GENERAL CHARACTERISTICS

- Rate : DC to 150 MHz for NIM and ECL translation.
DC to 100 MHz for TTL translation.
- Minimum Pulse Widths : 4 nSec for NIM and ECL translation,
7 nSec for TTL translation.
- Delay : NIM, TTL or ECL input to NIM or ECL output = 5 nSec.
NIM, TTL or ECL input to TTL output = 10 nSec.
- Power Requirements : + 6 V @ 450 mA - 6 V @ 1290 mA
+24 V @ 110 mA -24 V @ 110 mA
- Packaging : Double width CAMAC module in accordance with ESONE Report EUR 4100.

BLOCK DIAGRAM OF ONE CHANNEL

